WHAT IS CLAIMED IS:

1. A data management system comprising:

a target operating system which is to be restored from a failure;

a storage device which stores the target operating system and data; and

a management operating system which is independent of the target operating system, including:

an operation state detection unit configured to detect an operation state of the target operating system when the operation state of the target operating system corresponds to one of a plurality of predetermined operation states;

an extraction unit configured to extract data to be saved from the storage device in accordance with the operation state detected by the operation state detection unit; and

a save storage unit configured to save the extracted data.

2. A system according to claim 1, wherein the management operating system has fewer security holes than the target operating system.

3. A system according to claim 1, wherein the management operating system is more limited in function than the target operating system.

4. A system according to claim 1, wherein the target operating system includes a function of

connecting to an external network, whereas the management operating system includes no function of connecting to an external network.

5. A system according to claim 1, wherein access from an external network to the management operating system is more restricted than access from an external network to the target operating system.

6. A system according to claim 1, wherein software of the management operating system operates on the same computer on which software of the target operating system operates.

7. A system according to claim 1, wherein the management operating system includes virtual computer software capable of executing software of the target operating system, and the software of the target operating system operates on the virtual computer.

8. A system according to claim 1, wherein software of the management operating system operates on a computer different from a computer on which software of the target operating system operates.

9. A system according to claim 1, further comprising one or a plurality of remote management devices installed independently of the management operating system,

the remote management device including a remote save storage unit which saves all or part of the data extracted by the extraction means.

10. A system according to claim 1, wherein the management operating system further comprises a unit configured to write back data saved in the save storage unit to the storage device to restore contents of the storage device to a state at a given time point in the past.

11. A system according to claim 9, wherein the management operating system further comprises a unit configured to write back data saved in the save storage unit or the remote save storage unit to the storage device to restore contents of the storage device to a state at a given time point in the past.

12. A system according to claim 9, wherein the remote management device further comprises a unit configured to write back data saved in the remote save storage unit to the storage device to restore contents of the storage device to a state at a given time point in the past.

13. A system according to claim 1, wherein the target operating system includes a unit configured to read out data saved in the connected save storage unit, as data stored in the storage device, at a given time in the past when the save storage unit is connected.

14. A system according to claim 9, wherein the target operating system includes a unit configured to read out data saved in the connected save storage unit or remote save storage unit as data stored in the

storage device at a given time point in the past when the save storage unit or the remote save storage unit is connected.

15. A system according to claim 1, wherein the extraction unit includes a conversion unit configured to convert the extracted data into a form with a less data amount on the basis of saved data which has already been saved, before the extracted data is saved.

16. A system according to claim 1, wherein the predetermined operation state includes a first operation state indicating that the target operating system terminates execution thereof.

17. A system according to claim 1, wherein the predetermined operation state includes a second operation state indicating that the target operating system starts execution thereof.

18. A system according to claim 1, wherein the predetermined operation state includes a third operation state indicating that the target operating system executes installation of an application program.

19. A system according to claim 1, wherein the predetermined operation state includes a fourth operation state indicating that the target operating system has changed data in the storage device.

20. A data management method of causing a management operating system independent of a target operating system to manage data in a storage device

which the target operating system has, comprising:

detecting an operation state of the target operating system when the operation state of the target operating system corresponds to one of a plurality of predetermined operation states;

extracting data to be saved from the storage device in accordance with the detected operation state; and

saving the extracted data in a save storage device.

21. A program for causing a computer to function as a data management apparatus which causes a management operating system independent of a target operating system to manage data in a storage device which the target operating system has, the program causing the computer to implement:

a function of detecting an operation state of the target operating system when the operation state of the target operating system corresponds to one of a plurality of predetermined operation states;

a function of extracting data to be saved from the storage device in accordance with the detected operation state; and

a function of saving the extracted data in a save storage device.